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25X1A6a Comment: Even though some of the following material was covered in this report is being presented as a whole because it comes from an entirely independent source.

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1. The ball bearing industry is one of the Soviet Union's youngest industries. It was established at the end of the First World War with the founding of the present Ball Bearing Factory No. 2 in Moscow by the Swedish firm SKF. This plant was under the jurisdiction of the home firm until 1931, and was then taken over by the Soviet State. In 1929-32 the second ball bearing factory, the present Factory No. 1 i/n L. M. Kaganovich, was constructed in Moscow. The construction of a third factory was started in 1936 in Saratov and continued until the beginning of the Second World War. Thus, at the beginning of the war the Soviet Union had three ball bearing factories, and most of the production took place in Moscow.
2. In the fall of 1941, a large part of both factories was evacuated from Moscow and transported to Tomsk, Sverdlovsk, and Kuibyshev, where work was shortly resumed on an independent basis. While the war was still in progress, plants were established in Shumika and Tashkent. In 1942, the Moscow plants were partly re-equipped with new machines, and resumed full production. By the end of the war, there were eight ball bearing factories in the Soviet Union. At the end of the war, Factories No. 1 and No. 2 were enlarged with equipment from the German plants Kugel-Fischer in Schweinfurt and Paessler in Limbach near Chemnitz. In addition, construction of two new factories was started in Kharkov and Baku. A section of the new factory in Baku commenced production at the end of April 1947. By the end of that year it is reported to have produced a total of 30,000 large ball bearings. The factory in Kharkov began production in October 1947.
3. At present there are ten ball bearing factories in the Soviet Union, as against three at the beginning of the Second World War. They are as follows:

Moscow Factory No. 1)
Moscow Factory No. 2) were in existence before the war
Saratov Factory No. 3)

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Kuibyshev Factory No. 4)
 Tomsk Factory No. 5)
 Sverdlovsk Factory No. 6) were operating at the end of the war
 Shumika*)
 Tashkent)

Baku)
 Kharkov) have been completed since the end of
 the war

4. With the development of the ball bearing industry, the Soviet Union has become increasingly less dependent on imports of ball bearings, especially from Sweden. However, it is not yet completely independent. In 1943, Soviet requirements and production were estimated by German and Russian technicians as follows:

Requirements

Tank industry	4.1 million bearings
Aircraft industry	12.0 " "
Shipbuilding, artillery, weapons industry	1.0 " "
Locomotive and railway car industry	2.0 " "
Tractor construction	3.1 " "
Motor vehicle industry (including bicycles and motorcycles)	7.0 " "
Agricultural machine industry	5.3 " "
Other machinery	12.0 " "
Electric machines, chemical industry, power production	2.0 " "
Total	48.5 million bearings

Coal and non-ferrous metal industry	5.1 million bearings
Iron and steel industry	2.0 " "
Other industries	ca. 3.0
Grand Total	58.6 million bearings

Production

Moscow Factory No. 1	30.0 million bearings
Moscow Factory No. 2	4.0 " "
Saratov Factory No. 3	2.0 " "
Kuibyshev Factory No. 4	5.7 " "
Tomsk Factory No. 5	3.3 " "
Sverdlovsk Factory No. 6	*****
Shumika	*****
Tashkent	*****
Total	45.0 million bearings

** Smaller works. Not known when production started, or volume of production.

According to these figures, there was a deficit of approximately 15 (sic) million bearings (25 percent of the requirements) which had to be covered by imports. Presumably, the import requirements of precision and special ball bearings were even greater. Even after the war the requirements have remained high, in spite of a decrease in armaments production and lower retail quota. The remarkable growth of the machine industry will probably mean that about 90 million ball bearings will be required in 1950 as against 60 million in 1943.

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5. Examples of planned increased production in the machine industry:

	<u>1938</u>	<u>1950</u>
Locomotives	1,600	2,720
Freight cars	49,100	146,000
Trucks	184,400	428,000
Passenger cars	27,000	65,600
Tractors	80,300	112,000

Further industrial requirements of ball bearings will rise 30 to 50 percent in the course of the Five-Year Plan:

	<u>1940</u>	<u>1950</u>
Coal production	160 million tons	250 million tons
Iron production	15 million tons	19.5 million tons
Steel production	18.5 million tons	25.4 million tons

On the basis of the requirements in 1943 and the rise in production (1938 or 1940 compared to 1950), the requirements of ball bearings in 1950 will be at least 80 million, or very probably 90 million. The following sources exist to cover these requirements: (a) domestic production, (b) production in the Soviet Zone of Germany, and (c) imports (mainly from Sweden). The ball bearing industries in Czechoslovakia and Poland will presumably not contribute their production to the Soviet Union, since they probably produce barely enough to cover domestic needs.

6. The actual production of ball bearings in Soviet plants is not known. An estimate can be made, however, from the following information on hand:
- The Moscow Factory No. 1 i/n Kaganovich produces special ball bearings, particularly with large diameters, for the iron and steel industries (including rolling mills) and power plants. As a result, industries requiring small and medium sized bearings suffer production difficulties.
 - Numerous other plants are reported being enlarged. The factory in Tomsk, No. 5, reportedly will have doubled its production by the end of the Five-Year Plan; it should produce six million bearings by 1950.
 - According to various reports, the factory in Saratov was considerably enlarged in 1945 and 1946. Machine tools removed from Leipzig were installed there. In October (1948?), the newly equipped workshops started production. Some Russian machines were replaced by faster working German machines. The production at the factory in Saratov is expected to increase to about four million bearings per year (sizes 2-40).
 - It is also reportedly planned to increase production at the factory in Shumika, according to the Five-Year Plan. No further details are available.
 - Factory No. 6 in Sverdlovsk has reportedly not reached its production quota.
 - Total production of bearings of all types and sizes is estimated at some 50 million.
7. Production from the Soviet Zone of Germany originates mainly from the DKF (Deutsche Kugellagerfabrik) in Bochlitz-Ehrenberg and the Firma Reich in Zella-Mehlis. Both factories deliver a total of about 1.5 million bearings to the Soviet Union per year.
8. No detailed figures are available for imports from Sweden. According to one report, the value of ball bearings imported from Sweden in 1943 came to a total of 15 million crowns.

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9. The supplying of precision ball bearings is particularly difficult. As far as is known, they are produced (in insufficient quantities) at factories No. 1 in Moscow and No. 3 in Saratov.

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Also reported as Shicha. Possibly Shumeka.

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